10/618,111

CLAIMS:

1 - 19. (cancelled).

20. (currently amended) A method of increasing the thermal conductivity of an electrically insulating epoxy material without compromising the electrical insulating properties of the material, the method comprising:

~~mixing~~ stirring an LCT-epoxy resin comprising a crystalline microstructure having a layered nature with an anhydriding agent at approximately 60° C. until a clear solution is formed;

~~and~~ after the solution is clear, adding a boehmite material into the clear solution and stirring at approximately 60° C. until the solution is again clear ~~under conditions adequate~~ to form a uniform ~~dispersion~~ dissolution of the boehmite material substantially free of particle wetting and with essentially complete co-reactivity of the boehmite material with the LCT-epoxy anhydride ~~resin to form a mixture~~; and

~~curing the mixture with a zinc naphthenate~~ adding an accelerator and curing the solution;

the method effective to produce homogeneous alumoxane-LCT-epoxy-anhydride polymers that retain the layered nature of the LCT-epoxy resin and are substantially free of micro-void formation and that exhibit a dielectric strength of at least 1.2 kV/mil while at the same time exhibiting thermal conductivity of at least 0.50 W/mK in a transverse direction and at least 0.99 W/mK in a thickness direction in an environment of 25°C.

21. (currently amended) A homogeneous alumoxane-LCT-epoxy anhydride polymer produced by the method of claim 20 and comprising a crystalline microstructure having a layered nature and exhibiting a dielectric strength of at least 1.2 kV/mil while at the same time exhibiting thermal conductivity of at least 0.50 W/mK in a direction transverse to layers of the microstructure and at least 0.99 W/mK in a thickness direction across the layers of the microstructure in an environment of 25°C.

22. (new) The method of claim 21, further comprising dissolving zinc naphthenate into the solution as the accelerator.